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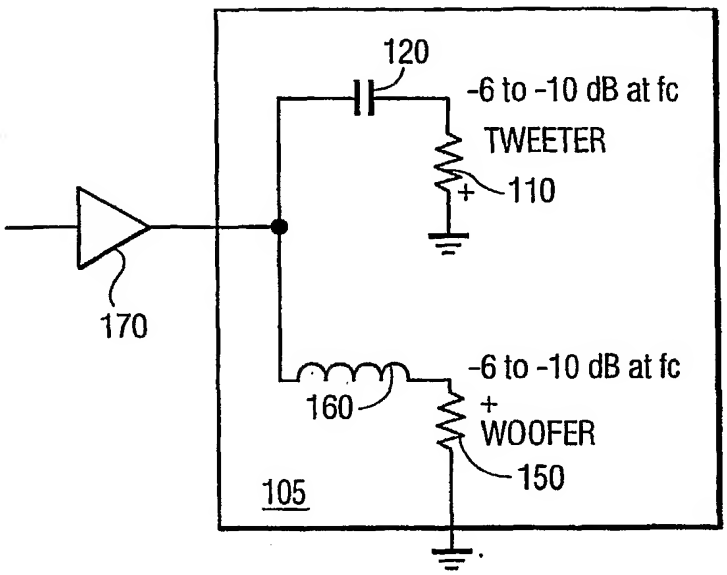
(54) Title: FIRST-ORDER LOUDSPEAKER CROSSOVER NETWORK



(57) Abstract: A first-order crossover network having low-pass and high-pass filters to respectively drive first and second loudspeakers in a loudspeaker system is designed such that the phase difference at a crossover frequency between output signals of the first and second loudspeakers is no greater than 60 degrees, so that the output signals are at least partially in phase. Preferably, the phase difference should be about 40 degrees to create a near in-phase effect. The polarity in which the first loudspeaker is coupled to the first-order crossover network is an inverse of the polarity in which the second loudspeaker is coupled to the crossover network. Optionally, the input signals can be equalized to flatten the magnitude responses of the crossover network.

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